

(c) a measuring device for measuring actual dimensions of working portions of the workpieces processed by said working machine; and

(d) a feedback compensating apparatus used with said machine control means and said measuring device, said feedback compensating apparatus including:

determining means for determining, as the extraneous signal, a compensating value for adjusting the working condition of said machine for the workpiece to be processed subsequently by said machine, on the basis of the actual dimensions of the working portions of the workpieces which have been measured by said measuring device, and according to a compensation rule, the compensation rule changing such that the compensating value to be determined according to the compensation rule is less responsive to a change in the actual dimensions of the processed workpieces when a frequency of a variation in a time of measurement of the actual dimensions successively obtained by said measuring device is higher than a threshold value, and the compensating value to be determined is more responsive to the change in the actual dimensions when the frequency of variation in the time of measurement is equal to or less than the threshold value; and

applying means for applying the compensating value to said machine control means.

48. The working system of claim 47, wherein said feedback compensating apparatus includes memory means for storing data representative of a plurality of control rules, and means for selecting as the compensation rule one of the plurality of control rules depending on the frequency of the variation in time of measurement.

49. The working system of claim 47, wherein said feedback compensating apparatus includes means for measuring the frequency of the variation in time of measurement, adjusting a predetermined compensation rule depending upon the frequency of the variation in time of measurement, and determining the compensating value according to the adjusted compensating rule.

50. A method of processing a plurality of workpieces by a working system including a working machine for successively processing the workpieces, machine control means for determining a working condition of said working machine on a basis of an extraneous signal, and controlling said working machine according to the determined working condition, and a measuring device for measuring actual dimensions of working portions of the workpieces processed by said working machine, said method comprising the steps of:

determining in said machine control means, as the extraneous signal, a compensating value for adjusting the working condition of said machine for the workpieces to be processed subsequently by said machine, on the basis of the actual dimensions of the working portions of the workpieces which have been measured by said measuring device, and

according to a compensation rule, the compensation rule changing such that the compensating value to be determined according to the compensation rule is relatively less responsive to a change in the actual dimensions of the processed workpieces when a frequency of a variation in time of measurement of the actual dimensions successively obtained by said measuring device is higher than a threshold value, and the compensating value to be determined is more responsive to the change in the actual dimensions when the frequency of variation in the time of measurement is equal to or less than the threshold value; and

applying the compensating value to said machine control means.--

REMARKS

New claims 47-50 correspond to amended claims 39-42 as amended in applicants' Supplemental Reply Brief submitted on November 25, 1996, during the appeal of the parent application.

The Examiner and the Board refused to consider the Supplemental Reply Brief amendments to claims 39-42 during the course of the appeal of the parent. These